

Abstract

It is described biologically pure bacterial cultures of mutant strains of *Pseudomonas fluorescens*, which produce large amounts of alginate. The alginate may contain a certain determined content of mannuronate and guluronic residues, possible presence and determined level of acetyl groups in the alginate, and a desired molecular weight of the alginate. Also high yielding mutants with regulation of alginate production, is described. The invention further provides methods for producing new mutant strains of *Pseudomonas fluorescens* and variants thereof, and use the resulting strains in alginate production.